IN THE CLAIMS

Please delete all prior lists of claims in the application and insert the following list of claims:

1. [Cancel] ~~An isolated polypeptide comprising in amino to carboxy order P4-P3-P2-P1, wherein P4 is P, P3 is R or K, P2 is any amino acid, and P1 is K or R (SEQ. ID. NO: 1).~~

2. [Cancel] ~~The isolated polypeptide of claim 1, wherein P4 is amino-terminally blocked.~~

3. [Cancel] ~~The isolated polypeptide of claim 2, wherein P4 is acetylated.~~

4. [Currently Amended] ~~The isolated polypeptide of claim 2,~~ An isolated polypeptide comprising in amino to carboxy order P4-P3-P2-P1, wherein P4 is P, P3 is A or R or K, P2 is any amino acid, and P1 is K or R (SEQ. ID. NO: 1 and SEQ. ID. NO: 6), wherein P4 is amino-terminally blocked, and further comprising a fluorogenic leaving group that is covalently bound to P4-P3-P2-P1 at a carboxy-terminus of P4-P3-P2-P1.

5. [Original] The isolated polypeptide of claim 4, wherein the fluorogenic leaving group is bound via an amide bond.

6. [Original] The isolated polypeptide of claim 4, wherein the fluorogenic leaving group comprises 7-amino-4-carbamoylmethyl-coumarin.

7. [Currently Amended] The isolated polypeptide of claim ~~1~~ 4, wherein P2 is N and further comprising a fluorogenic leaving group that is bound to P4-P3-P2-P1 via an amide bond on a carboxy-terminus of P4-P3-P2-P1

8. [Original] The isolated polypeptide of claim 7, wherein the fluorogenic leaving group comprises 7-amino-4-carbamoylmethyl-coumarin.

9. [Original] The isolated polypeptide of claim 6, wherein P4-P3-P2-P1 is selected from the group consisting of P-R-N-K (SEQ. ID. NO: 2), P-K-N-K (SEQ. ID. NO: 3), P-R-N-R (SEQ. ID. NO: 4), P-K-N-R (SEQ. ID. NO: 5), P-A-N-K (SEQ. ID. NO: 6), and P-R-T-K (SEQ. ID. NO: 7).

10. [Original] The isolated polypeptide of claim 9, wherein P4-P3-P2-P1 is P-R-N-K (SEQ. ID. NO: 2).

11. [Original] The isolated polypeptide of claim 9, wherein P4-P3-P2-P1 is P-K-N-K (SEQ. ID. NO: 3).

12. [Original] The isolated polypeptide of claim 9, wherein P4-P3-P2-P1 is P-R-N-R (SEQ. ID. NO: 4).

13. [Original] The isolated polypeptide of claim 9, wherein P4-P3-P2-P1 is P-K-N-R (SEQ. ID. NO: 5).

14. [Original] The isolated polypeptide of claim 9, wherein P4-P3-P2-P1 is P-A-N-K (SEQ. ID. NO: 6).

15. [Original] The isolated polypeptide of claim 9, wherein P4-P3-P2-P1 is P-R-T-K (SEQ. ID. NO: 7).

16. [Cancel] ~~The isolated polypeptide of claim 1, wherein P1 is linked to a serine protease reactive inhibitor moiety.~~

17. [Cancel] ~~The isolated polypeptide of claim 16, wherein the serine protease reactive inhibitor moiety is chloromethyl ketone, which is linked to P1.~~

18. [Cancel] ~~The isolated polypeptide of claim 16, wherein P4 is amino-terminally blocked.~~

19. [Cancel] ~~The isolated polypeptide of claim 18, wherein P4 is acetylated.~~

20. [Cancel] ~~The isolated polypeptide of claim 18, wherein P2 is N.~~

21. [Cancel] ~~The isolated polypeptide of claim 20, wherein P4-P3-P2-P1 is selected from the group consisting of P-R-N-K (SEQ. ID. NO: 2), P-K-N-K (SEQ. ID. NO: 3), P-R-N-R (SEQ. ID. NO: 4), P-K-N-R (SEQ. ID. NO: 5), P-A-N-K (SEQ. ID. NO: 6), and P-R-T-K (SEQ. ID. NO: 7).~~

22. [Cancel] ~~The isolated polypeptide of claim 21, wherein P4-P3-P2-P1 is P-R-N-K (SEQ. ID. NO: 2).~~

23. [Cancel] ~~The isolated polypeptide of claim 21, wherein P4-P3-P2-P1 is P-K-N-K (SEQ. ID. NO: 3).~~

24. [Cancel] ~~The isolated polypeptide of claim 21, wherein P4-P3-P2-P1 is P-R-N-R (SEQ. ID. NO: 4).~~

25. [Cancel] ~~The isolated polypeptide of claim 21, wherein P4-P3-P2-P1 is P-K-N-R (SEQ. ID. NO: 5).~~

26. [Cancel] ~~The isolated polypeptide of claim 21, wherein P4-P3-P2-P1 is P-A-N-K (SEQ. ID. NO: 6).~~

27. [Cancel] ~~The isolated polypeptide of claim 21, wherein P4-P3-P2-P1 is P-R-T-K (SEQ. ID. NO: 7).~~

28. [Original] A method of assaying activity of an enzymatically-active β-tryptase in a sample, the method comprising:

(a) contacting the sample with an isolated polypeptide comprising in amino to carboxy order P4-P3-P2-P1, wherein P4 is amino-terminally blocked and is P, and wherein P4-P3-P2-P1 is selected from the group consisting of P-R-N-K (SEQ. ID. NO: 2), P-K-N-K (SEQ. ID. NO: 3), P-R-N-R (SEQ. ID. NO: 4), P-K-N-R (SEQ. ID. NO: 5), P-A-N-K (SEQ. ID. NO: 6), and P-R-T-K (SEQ. ID. NO: 7), and further wherein a fluorogenic leaving group comprising 7-amino-4-carbamoylmethyl-coumarin is bound via an amide bond to P4-P3-P2-P1 at a carboxy-terminus of P4-P3-P2-P1, under conditions wherein an amount of the fluorogenic leaving group is cleaved from P4-P3-P2-P1 upon action of the β-tryptase, thereby producing a fluorescent moiety; and then

(b) quantifying the amount of detectable leaving group cleaved from the polypeptide, the amount being an indication of the activity of the enzymatically-active β-tryptase in the sample.

29. [Original] The method of claim 28, wherein in step (a), the detectable leaving group is a fluorogenic leaving group.

30. [Original] The method of claim 29, wherein in step (a), the fluorogenic leaving group is attached to a carboxy-terminus of P4-P3-P2-P1 via an amide bond.

31. [Original] The method of claim 29, wherein in step (a), P4 is acetylated.

32. [Original] The method of claim 31, wherein in step (b), the amount of detectable leaving group cleaved from the polypeptide is detected by observing whether the sample undergoes a detectable change in fluorescence.

33. [Original] The method of claim 28, wherein the sample is a bodily fluid clinical sample.

34. [Original] The method of claim 33, wherein the clinical sample is whole blood, serum, plasma, urine, tears, lavage, tissue extract, or conditioned media.

35. [Original] The method of claim 28, further comprising, prior to step (a), adding aprotinin to the sample to inhibit proteases other than β-tryptase, thereby reducing non-specific cleavage of the detectable leaving group from P4-P3-P2-P1 by proteases other than β-tryptase.

36. [Original] A method of assaying activity of an enzymatically-active β-tryptase in a sample, the method comprising:

(a) contacting the sample with an isolated polypeptide comprising in amino to carboxy order P4-P3-P2-P1, wherein P4 is amino-terminally blocked, and wherein P4-P3-P2-P1 is selected from the group consisting of P-R-N-K (SEQ. ID. NO: 2), P-K-N-K (SEQ. ID. NO: 3), P-R-N-R (SEQ. ID. NO: 4), P-K-N-R (SEQ. ID. NO: 5), P-A-N-K (SEQ. ID. NO: 6), and P-R-T-K (SEQ. ID. NO: 7), and further wherein a fluorogenic leaving group comprising 7-amino-4-carbamoylmethyl- coumarin is bound via an amide bond to P4-P3-P2-P1 at a carboxy-terminus of P4-P3-P2-P1, under conditions wherein an amount of the fluorogenic leaving group is cleaved from P4-P3-P2-P1 upon action of the β-tryptase, thereby producing a fluorescent moiety; and then

(b) measuring whether the sample undergoes a detectable change in fluorescence, the detectable change being an indication of the activity of the enzymatically-active β-tryptase in the sample.

37. [Original] The method of claim 34, further comprising adding aprotinin to the sample to inhibit proteases other than β-tryptase, thereby reducing non-specific cleaveage of the fluorogenic leaving group from P4-P3-P2-P1 by proteases other than β-tryptase.

38. [Cancel] ~~A method of inhibiting an enzymatically-active β-tryptase in a sample, the method comprising: contacting the sample with an isolated polypeptide comprising in amino to carboxy order P4-P3-P2-P1, wherein P4 is P, P3 is R or K, P2 is any amino acid, and P1 is K or R (SEQ. ID. NO: 1), wherein P4 is acetylated, and wherein P1 is linked to a chloromethyl ketone, under conditions wherein the isolated polypeptide interacts with and inhibits enzymatic β-tryptase present in the sample.~~

39. [Cancel] ~~The method of claim 38, further comprising quantifying inhibition of the β-tryptase activity in the sample.~~

40. [Cancel] ~~The method of claim 38, wherein in step (a), P4-P3-P2-P1 is selected from the group consisting of P-R-N-K (SEQ. ID. NO: 2), P-K-N-K (SEQ. ID. NO: 3), P-R-N-R (SEQ. ID. NO: 4), P-K-N-R (SEQ. ID. NO: 5), P-A-N-K (SEQ. ID. NO: 6), and P-R-T-K (SEQ. ID. NO: 7).~~

41. [Currently Amended] A kit for analyzing samples for β-tryptase activity comprising:

an isolated polypeptide comprising in amino to carboxy order P4-P3-P2-P1, wherein P4 is P, P3 is A or R or K, P2 is any amino acid, and P1 is K or

R (SEQ. ID. NO: 1 and SEQ. ID. NO: 6), and wherein a one and only one detectable leaving group is covalently bound to P4-P3-P2-P1; and

a suitable container, the isolated polypeptide being disposed therein.

42. [Original] The kit of claim 41, wherein the isolated polypeptide is provided in solution, lyophilized, or bound to a solid support.

43. [Cancel] ~~The kit of claim 41, wherein P4-P3-P2-P1 further comprises a serine protease reactive moiety.~~

44. [Original] The kit of claim 41, wherein P4 of the isolated polypeptide is acetylated.

45. [Original] The kit of claim 41, wherein the detectable leaving group is a fluorogenic leaving group covalently bonded to a carboxy-terminus of P4-P3-P2-P1 via an amide bond.

46. [Original] The kit of claim 41, wherein P4-P3-P2-P1 is selected from the group consisting of P-R-N-K (SEQ. ID. NO: 2), P-K-N-K (SEQ. ID. NO: 3), P-R-N-R (SEQ. ID. NO: 4), P-K-N-R (SEQ. ID. NO: 5), P-A-N-K (SEQ. ID. NO: 6), and P-R-T-K (SEQ. ID. NO: 7).

47. [Original] The kit of claim 41, further comprising a supply of aprotinin disposed in a second container.

48. [Cancel] ~~The kit of claim 41, wherein p1 is linked to a chloromethyl ketone.~~